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10/676,846	09/30/2003	Andreas Roessler	09700.0061	3766

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EXAMINER
THERIAULT, STEVEN B

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 April 2010</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
  closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,4,5,7,9,11-15,17-19,21 and 22</u> is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1,2,4,5,7,9,11-15,17-19,21 and 22</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the following communications: Arguments filed 04/23/2010.

2.   Claims 1-2, 4-5, 7, 9, 11-15, 17-19, and 21-22 are pending in the case.

      Applicant is advised that a new examiner has been assigned to the application.

This action has been made Final.

Response to Arguments

3.   Applicant's argument's, see page 11, filed 04/23/2010, with respect to the rejection(s) of claim(s)

      1-2, 4-5, 7, 9, 11-15, 17-19, and 21-22 under Robotham have been fully considered and are

      persuasive. Specifically, applicant argues that amended feature of Robotham does not show a

      pre-rendering of future interface appearances corresponding to the future interface state as

      selected by the user, as amended in the submission filed 04/23/2010. However, it is noted that a

      new examiner has been assigned to the application and the current examiner is not aware of an

      agreement of indicated allowable subject matter, as presented by applicant on page 10.

      Moreover, applicant amended the claims in conjunction to the arguments which necessitated the

      final rejection below based on an updated search performed by the current examiner. Therefore,

      the arguments are moot in light of the new grounds of rejection presented below.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

      rejections set forth in this Office action:

      (a) A patent may not be obtained though the invention is not identically disclosed or described as
      set forth in section 102 of this title, if the differences between the subject matter sought to be
      patented and the prior art are such that the subject matter as a whole would have been obvious
      at the time the invention was made to a person having ordinary skill in the art to which said
      subject matter pertains. Patentability shall not be negatived by the manner in which the invention
      was made.

      The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966),

      that are applied for establishing a background for determining obviousness under 35

      U.S.C. 103(a) are summarized as follows:

      1.   Determining the scope and contents of the prior art.

   2.   Ascertaining the differences between the prior art and the claims at issue.
   3.   Resolving the level of ordinary skill in the pertinent art.
   4.   Considering objective evidence present in the application indicating obviousness or
         nonobviousness.

5.   **Claims 1-2, 4-5, 7, 9, 11, 13-15, 17-19, and 21 are rejected under 35 U.S.C 103(a) as being**

      unpatentable over Gheith et al. (hereinafter Gheith) U.S. Patent No. 7082454 field Nov. 15,

      1999, in view of Nguyen et al (hereinafter Nguyen) U.S. Patent No. 6584498 filed Sept. 13,

      1996.

In regard to **Independent claim 1,** Gheith teaches a computer program product, tangibly

embodied in a non-transitory computer-readable storage medium (See column 2, lines 40-67 and

figure 1), comprising instructions operable on a computer to:

   •   Provide a user interface for a computer program application the user interface being

       operable to receive input from a user interacting with the <u>computer</u> and from the input to

       generate user interaction events (See Figure 2, and column 4, lines 15-67). Gheith shows

       a user interface that receives user inputs to generate state information and URL

       information to change the interface.

   •   Identify ~~on the client~~ one or more future user interaction events that may occur while the

       user interface is in a current user interface state (See Column 4, lines 20-55). Gheith

       identifies future product choices based on the current selections in figure 2.

   •   Select one or more of the future user interaction events to pre-process based on

       the estimated likelihoods that the future user interaction events will occur (See column 4,

       lines 20-67). Gheith teaches determining the content of the subsequent page based on

       the options made by the user. The determination is made out of the 20 options presented

       to the user, based on the state selection, the appropriate events will be displayed.

- Pre-process the selected future user interaction events to generate one or more future user interface states ~~and future user interface appearances corresponding to the generated future user interface~~ states while the user interface is in the current user interface state (See column 5, lines 55-67 and column 6, lines 1-41).

- <u>Pre-render, while the user interface is in the current user interface state, future user interface appearances corresponding to the generated future user interface states and store the pre-rendered user interface appearances for future use.</u> (See column 5, lines 55-67 and column 6, lines 1-41). Gheith teaches the system look-ahead manager populates the cache (stores) with files necessary to display the next state selected by the user) by performing content production to generate code to product HTML and then serves the file to the computer which is then saved in cache 360. Therefore, the next page is generated, served and stored and ready to be presented to the user.

Gheith does not expressly recite a step of:

- Estimate a likelihood for the future user interaction events to occur based on a history of previous user inputs to the user interface;

Gheith does not expressly statue using history of inputs to estimate the next event even thought the previous choices are used and stored to facilitate the generation of the next interface. Nonetheless, Nguyen also teaches a system for dynamically generating web pages after a user has made a selection for the purposes of presenting pages to the user more quickly. Nguyen specifically teaches preloading images that can be based on the history of user's selections (See column 7, lines 10-67). Nguyen teaches the system adaptively changes the content by analyzing the user's history of selections to preload secondary pages. Nguyen and Gheith both teach loading the next pages for the user to view. They both teach monitoring user selections and they both teach a process of making it easier for the user to navigate through web pages by delivering the page to the user prior to their viewing which reduces display rendering times.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention having the teachings of Gheith and Nguyen in front of them to modify the system of Gheith to specifically track the history of user selections to determine the next interface state. The motivation to combine Gheith with Nguyen comes from within Nguyen to dynamically preload pages when pages are accessed in accordance with preferences specified by the user (See column 6, lines 50-67) for the purposes of determining which pages to load first and to reduce the time to load the next page derived from the current page users selections (see column 1, lines 25-46).

With respect to **dependent claim 2,** Gheith teaches the product further comprising instructions to receive an actual input from the user and, if a first one of the future user interface states corresponds to the actual input, display the future user interface appearance corresponding to the first user interface state (See column 5, lines 45-55 and column 4, lines 15-45).

With respect to **dependent claim 4,** Gheith teaches the product further comprising instructions to generate code to render the first user interface state (See column 7, lines 1-20).

With respect to **dependent claim 5,** Gheith teaches the product wherein the code to render the first user interface state comprises HTML (Hypertext Markup Language) code (See column 3, lines 45-67 and column 7, lines 1-20).

With respect to **dependent claim 7,** Gheith teaches the product further comprising instructions to specify an order for pre-processing the future user interaction events based on the estimated likelihoods that the future user interaction events will occur (See column 6, lines 40-67, view the hashing function can create an order in the cache to which the pages are organized for processing by using the identifier, or key corresponding to the location in cache.

With respect to **dependent claim 9,** Gheith teaches the product wherein the user interface comprises a control having instructions to establish the estimated likelihoods for the future user interaction events (See column 4, lines 30-43).

With respect to **dependent claim 11,** Gheith teaches the product wherein the instructions to pre-process the selected future user interaction events ~~generate one or more future user interface states~~ comprise instructions to obtain data from the computer program application for the generated future user interface states (See column 4, lines 15-67, retrieves configuration options and URL string and state from the application in Figure 2).

With respect to **dependent claim 13,** Gheith teaches the product herein the computer program product is a program running on a server computer in data communication with [[the]] a client computer; and the instructions to provide a user interface ~~on the client computer~~ comprise instructions to provide the user interface in a Web browser (See column 3, lines 45-67 and column 7, lines 1-20)

> With regard to **claims 14-15 and 17,** claims 14-15 and 17 reflect the method that comprises steps executable in the product on a medium of claims 1, 2 and 7, respectively, and are rejected along the same rationale. Gheith teaches the medium and the product to execute the program displaying an interface with cached future interfaces generated from user interactions (See column 3, lines 45-67).

> With regard to **claims 18-19 and 21,** claims 18-19 and 21 reflect the apparatus that comprises computer readable instructions for performing the steps of product claims 1, 2 and 7, respectively, and are rejected along the same rationale. Gheith clearly teaches the apparatus displaying an interface with cached future interfaces generated from user interactions (See column 3, lines 45-67).

Claims 12, and 22 are rejected under 35 U.S.C 103(a) as being unpatentable over Gheith et al. (hereinafter Gheith) U.S. Patent No. 7082454 field Nov. 15, 1999, in view of Nguyen et al (hereinafter Nguyen) U.S. Patent No. 6584498 filed Sept. 13, 1996, in further view of O'Brien et al. (hereinafter O'Brien) U.S. Patent No. 6055569 filed Jan. 27, 1998.

With respect to **dependent claims 12 and 22,** as indicated in the above discussion Gheith in view of Nguyen teaches every element of claim 1.

Gheith teaches tracking user inputs to determine the next state of an interface but does not state determining an estimate of occurrence. Nguyen teaches determining an estimate based on user history and preferences. Neither teach determining if the likelihood of occurrence exceeded a threshold. Therefore, Gheith in view of Nguyen do not expressly teach the product wherein each of the selected future user interaction events has estimated likelihoods of occurrence exceeding a threshold probability, and the future user interaction events other than the selected future user interaction events have estimated likelihoods that do not exceed the threshold probability and further comprising instructions for raising or lowering the threshold probability.

However, these limitations would have been obvious to the skilled artisan at the time of the invention in view of O'Brien because O'Brien suggests a modification of traditional caching mechanisms of storing the next page by determining a probability or weight that the user will chose the link and retrieving the higher probability links (See column 1, bottom and column 2, top). O'Brien teaches adjusting the browser sensitivity to read the keywords associated with tags that specify the URL embedded in the link shown to the user. The keyword contains the probability that the link will be selected by the user and can limit the downloads to links that have a probability of greater than 60% chance of selection, for example (See column 3, lines 20-67 and column 4, lines 1-51). Alternatively, the weights can be set by using the logged selection data (See column 4, bottom) or the system can identify the user and accessing the history of links selected by the user and customized for each user, which is a control for setting the threshold value(See column 5, top). Gheith, Nguyen and O'Brien all teach processes of determining from a users selections what the next page would be for the purposes of reducing the retrieval time and subsequent interface rendering time. They all teach pre-loading and caching and they all teach browser based interfaces.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of

the invention having the teachings of Gheith and Nguyen in front of them to modify the system of

Gheith and Nguyen to only present user interface options based on an estimate exceeding the

threshold value. The motivation to combine Gheith, Nguyen and O'Brien comes from within

O'Brien to only cache the links most likely to be selected by the user (See column 2, lines 1-20).

A reference to specific paragraphs, columns, pages, or figures in a cited prior art reference is not limited to preferred embodiments or any specific examples. It is well settled that a prior art reference, in its entirety, must be considered for all that it expressly teaches and fairly suggests to one having ordinary skill in the art. Stated differently, a prior art disclosure reading on a limitation of Applicant's claim cannot be ignored on the ground that other embodiments disclosed were instead cited. Therefore, the Examiner's citation to a specific portion of a single prior art reference is not intended to exclusively dictate, but rather, to demonstrate an exemplary disclosure commensurate with the specific limitations being addressed. In re Heck, 699 F.2d 1331, 1332-33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)). In re: Upsher-Smith Labs. v. Pamlab, LLC, 412 F.3d 1319, 1323, 75 USPQ2d 1213, 1215 (Fed. Cir. 2005); In re Fritch, 972 F.2d 1260, 1264, 23 USPQ2d 1780, 1782 (Fed. Cir. 1992); Merck & Co. v. Biocraft Labs., Inc., 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989); In re Fracalossi, 681 F.2d 792,794 n.1, 215 USPQ 569, 570 n.1 (CCPA 1982); In re Lamberti, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976); In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the

extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date

of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to STEVEN B. THERIAULT whose telephone number is (571)272-5867. The examiner can

normally be reached on Mon.-Fri. 10 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative

or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

/Steven B Theriault/
Primary Examiner
Art Unit 2179